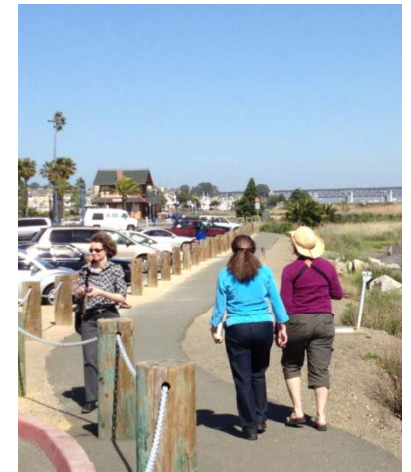
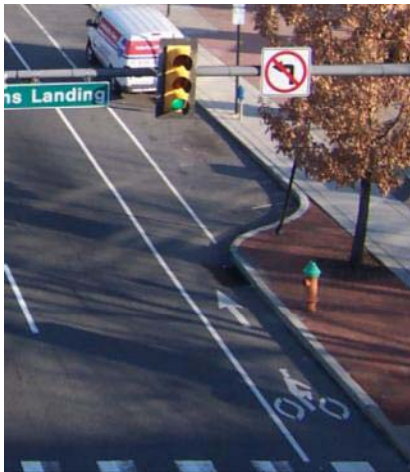


MTC One Bay Area Grant: Complete Streets Policy Development Workshop



Sonoma County Transportation Authority
Tuesday, October 23, 9:00 a.m. – 12:00 p.m.



Agenda

9:00 a.m. – 10:15 a.m.

- Introduction
- Policy Background
- MTC Complete Streets Sample Resolution

Break (15 minutes)

10:30 a.m. – 12:00 p.m.

- Integrating Complete Streets Policy Language into Plans
- Steps to Implementing Complete Streets Policies
- Next Steps

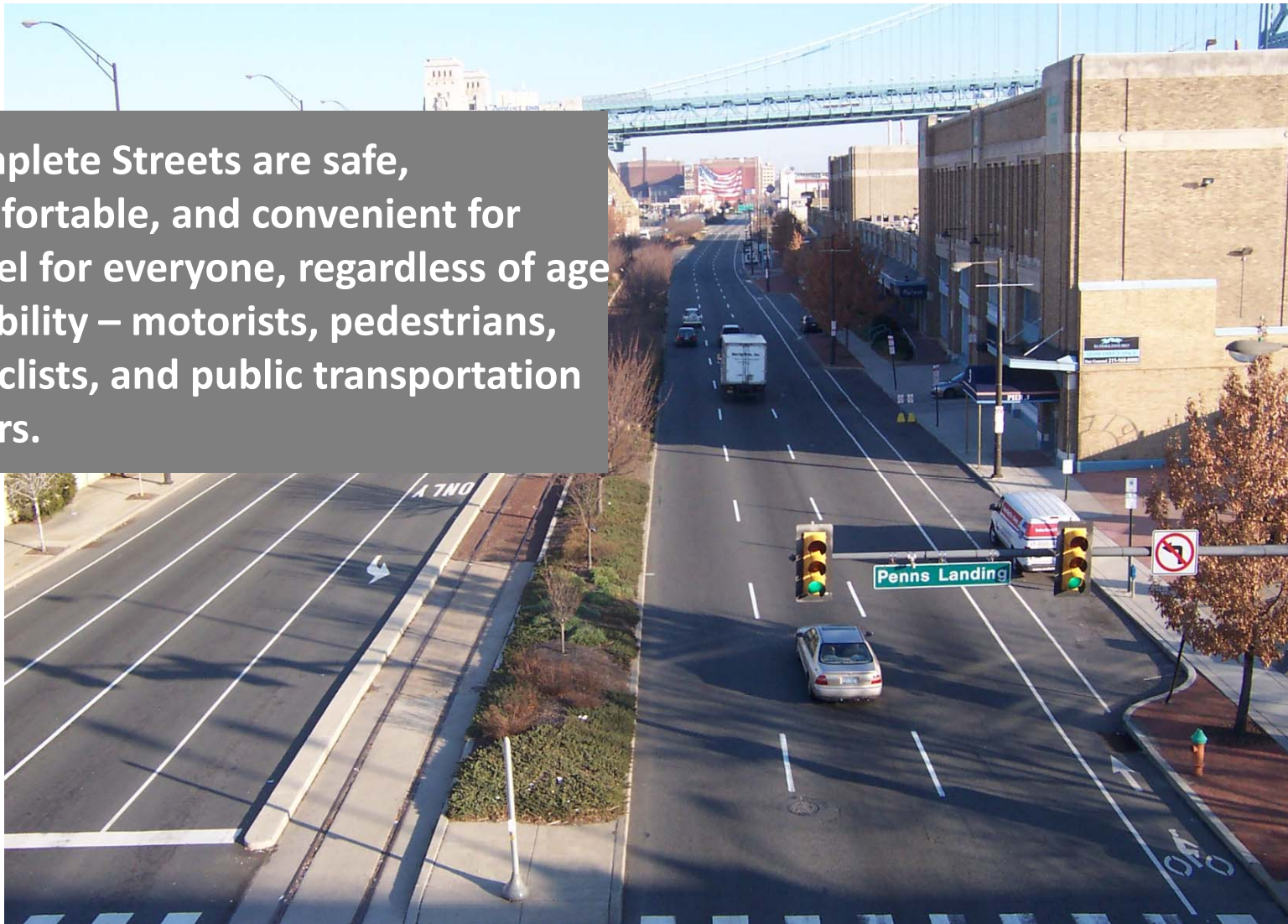
Introduction



Brett Hondorp, Alta Planning + Design

What are Complete Streets?

Complete Streets are safe, comfortable, and convenient for travel for everyone, regardless of age or ability – motorists, pedestrians, bicyclists, and public transportation riders.



Definition of Complete Streets

“Everyone” includes walkers, bicyclists, motorists and transit users of all ages and abilities



Definition of Complete Streets

“Safe, convenient and inviting” is context-dependent



Definition of Complete Streets

Provide connections to essential destinations:

Schools



Parks

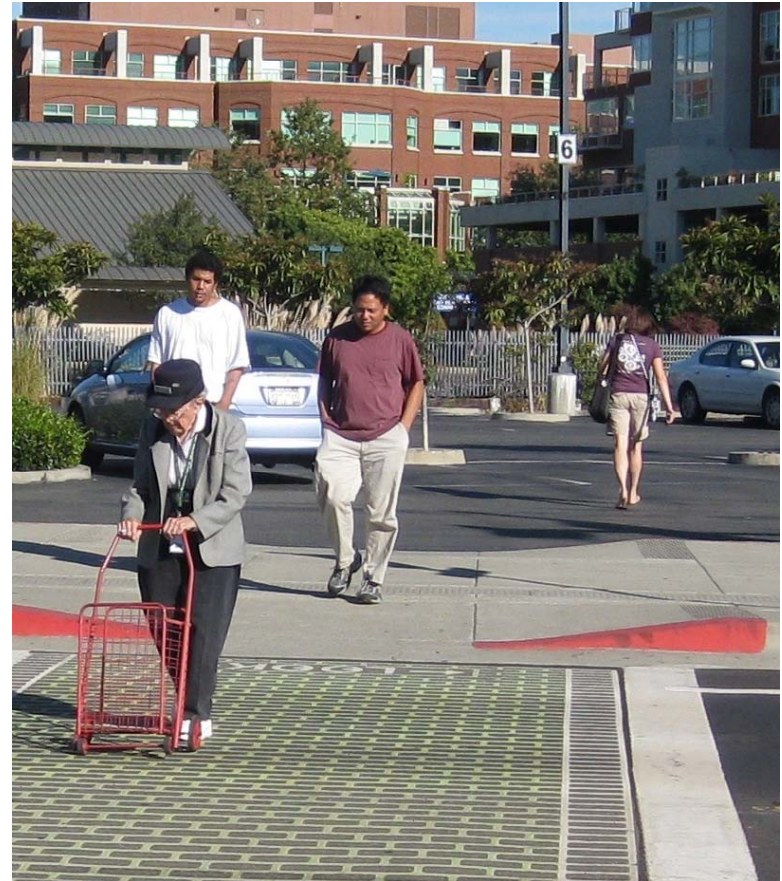


Shopping



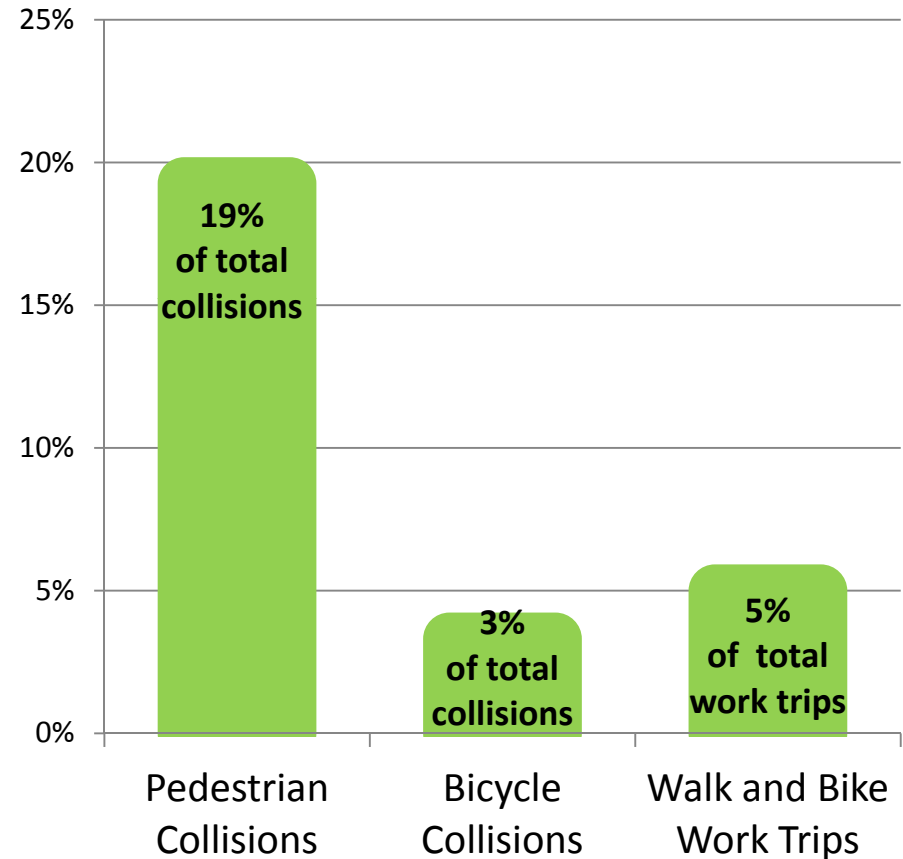
Benefits of Complete Streets

- Safety
- Transportation and mobility
- Air and water quality
- Public health
- Economics and real estate
- Livability



Improved Safety

- Bicyclists and pedestrians are disproportionately represented in crash rates
- Designing streets for all users reduces crashes
 - In Santa Monica, a street reconfiguration reduced crashes by 65%¹



California Highway Patrol 1998 to 2007 Bay Area Collisions
American Community Survey Work Trips (2009)

Increased Transit Ridership

- Sidewalks and crossings encourage transit use
 - Walkable neighborhoods of King County, WA have higher public transportation shares²
- Improving efficiency and reliability makes transit more appealing
 - A priority signal system in Los Angeles decreased travel time by 25% and increased ridership by more than 30%³



Increased Walking and Bicycling

- Pedestrian facilities encourage walking
 - Residents are 65% more likely to walk in a neighborhood with sidewalks⁴
- Bicycle facilities encourage biking
 - Cities with more bike lanes per square mile have higher levels of bicycle commuting⁵
 - San Francisco's improvements on Valencia Street resulted in 1.4 times more cyclists and 36% fewer pedestrian collisions¹



Increased Mobility for People with Disabilities and Older Adults

- Older pedestrians are more at risk
 - In 2008, older pedestrians represented 18% of the fatalities but were only 13% of the population nationwide ⁶
- Seniors are more isolated
 - Non-driving seniors make 65% fewer trips to visit family, friends or go to church⁷
- Pedestrians with disabilities require additional design consideration
 - Blind pedestrians wait three times longer to cross the street than sighted pedestrians⁸



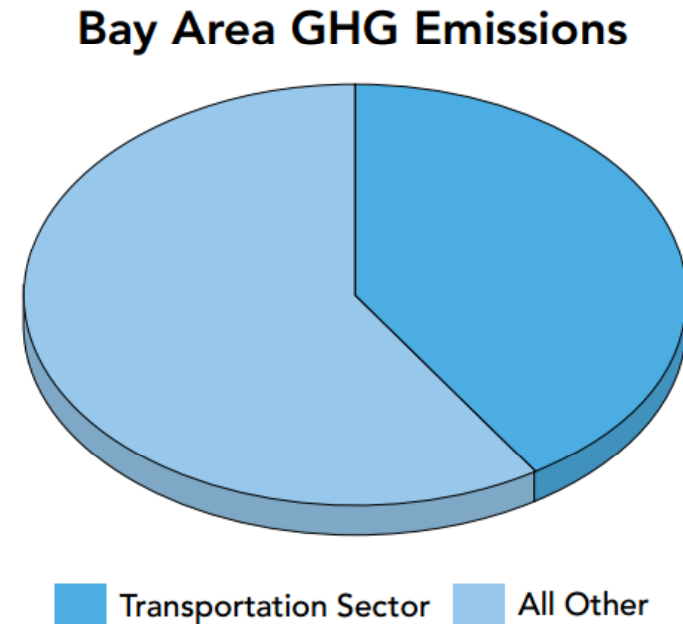
Increased Roadway Capacity



Photos: Tampa Tribune
From National Complete Streets Coalition

Reduced Air Pollution from Transportation

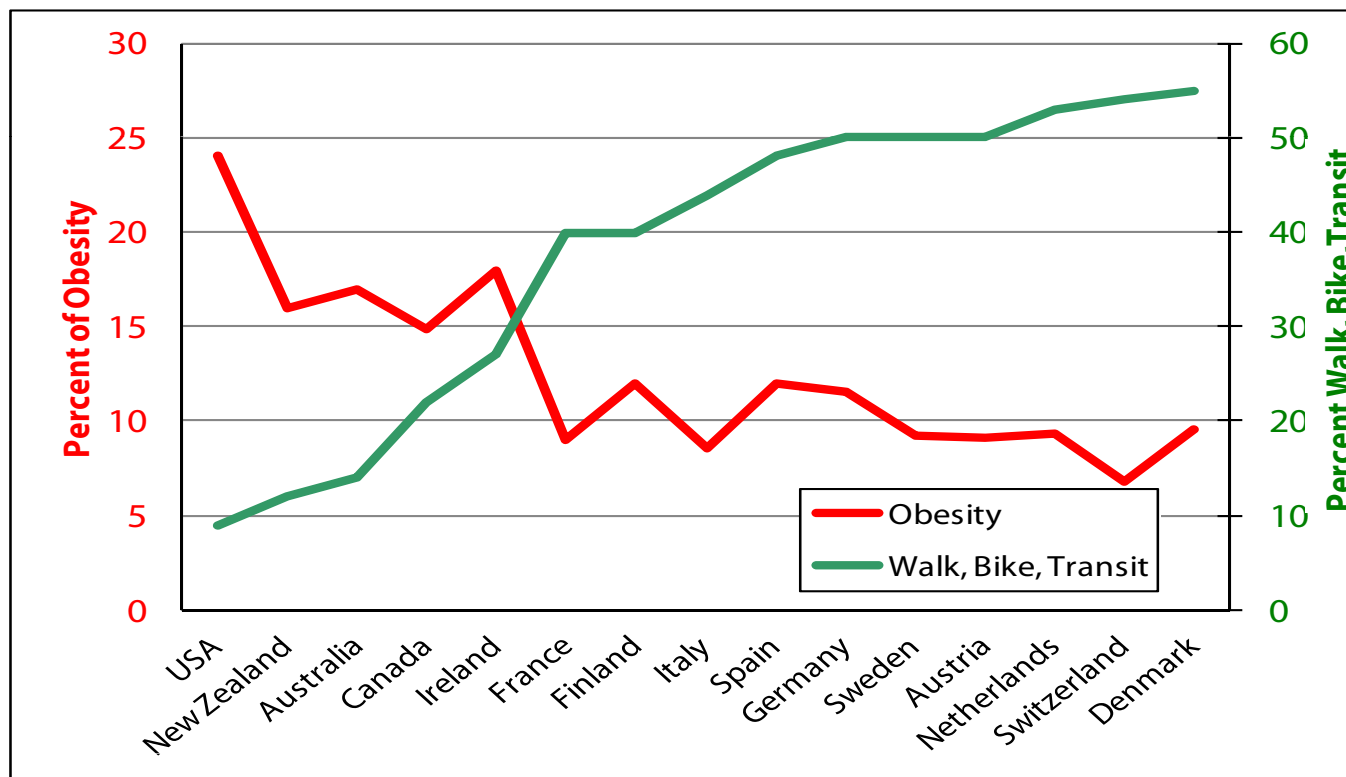
- Transportation is a major source of air pollution
 - 75% of air pollution emissions in the Bay Area are from mobile sources (particularly cars & light duty trucks)⁹
- Many trips could be walkable or bikeable
 - 40% of all trips are < 2 miles



SOURCE: US EPA

Reduced Obesity

Obesity is lower in places where people use bicycles, public transportation, and their feet¹⁰



Source: Pucher, "Walking and Cycling: Path to Improved Public Health," Fit City Conference, NYC, June 2009

Healthier Children

- Children are increasingly inactive
 - Nationally, fewer than 1/3 of children participate in 20 minutes of physical activity¹¹
- Active children are ready to learn
 - Students who are more physically fit score higher on academic achievement tests¹²



Enhanced Economic Competitiveness

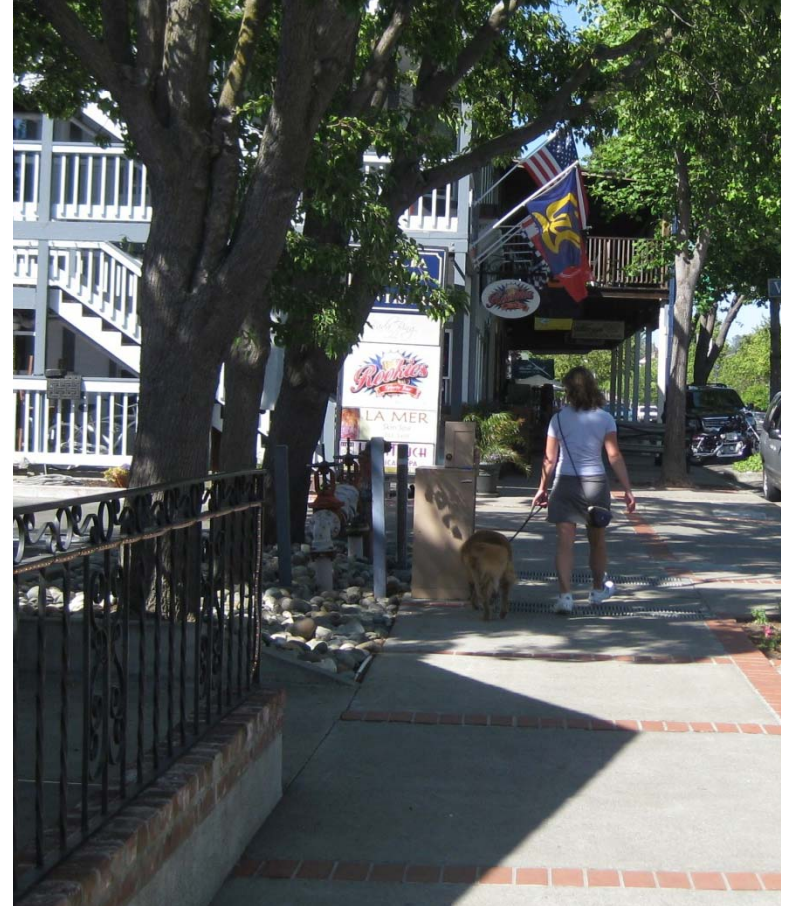
- Walkable communities are desirable to homeowners
 - In San Francisco, a 1-point increase in the 100-point Walk Score scale was found to result in a \$2,985 increase in home value ¹³
- Public investments spur private money
 - In Lancaster, CA, a \$10M investment in new lighting, landscaping, and trees spurred \$125M in investment in the downtown area ¹



Increased Livability

Top 10 Attributes of Desirable Neighborhoods¹⁴

1. **Safe to walk** around at night
2. Safe and convenient to **walk** and **bike** for errands
3. Clean neighborhood
4. **Short commute** to work
5. Neighborhood where there are places to spend time
6. Need only one or **fewer parking** spots
7. Plenty of indoor space
8. Parks nearby
9. Outdoor recreation opportunities nearby
10. **Quiet** street



Why Have a Policy?

- To **update practices**, integrating the needs of all street users into **all phases** of a project
- To ensure **every project** becomes an opportunity to help create a complete street
- To bring an overarching **vision and consistency** to disparate departmental approaches
- To improve departmental **efficiency and streamlining**
- To be considered for One Bay Area Grant funds

Types of Policies

- **Resolutions** are non-binding, official statements of support for the CS approach
- **Ordinances** change city code to legally require the needs of all users be addressed in transportation projects
- **General Plans** may include CS policies in goals and objectives and provide implementation guidance
- **Design Guidelines** promote street design that complies with CS goals

Case Study: Baldwin Park

- Health concerns
 - 26% of adults in LA County are obese
 - Over 39% of children in Baldwin Park are overweight
- Lack of complete streets
 - Few places to walk & bike
 - Interstates are a barrier to transportation



Case Study: Baldwin Park

- Support from Public Health
 - Worked with LA County Dept of Public Health & others
 - Received RENEW grant
- Complete Streets implementation
 - Held CS policy workshop
 - Adopted comprehensive policy:

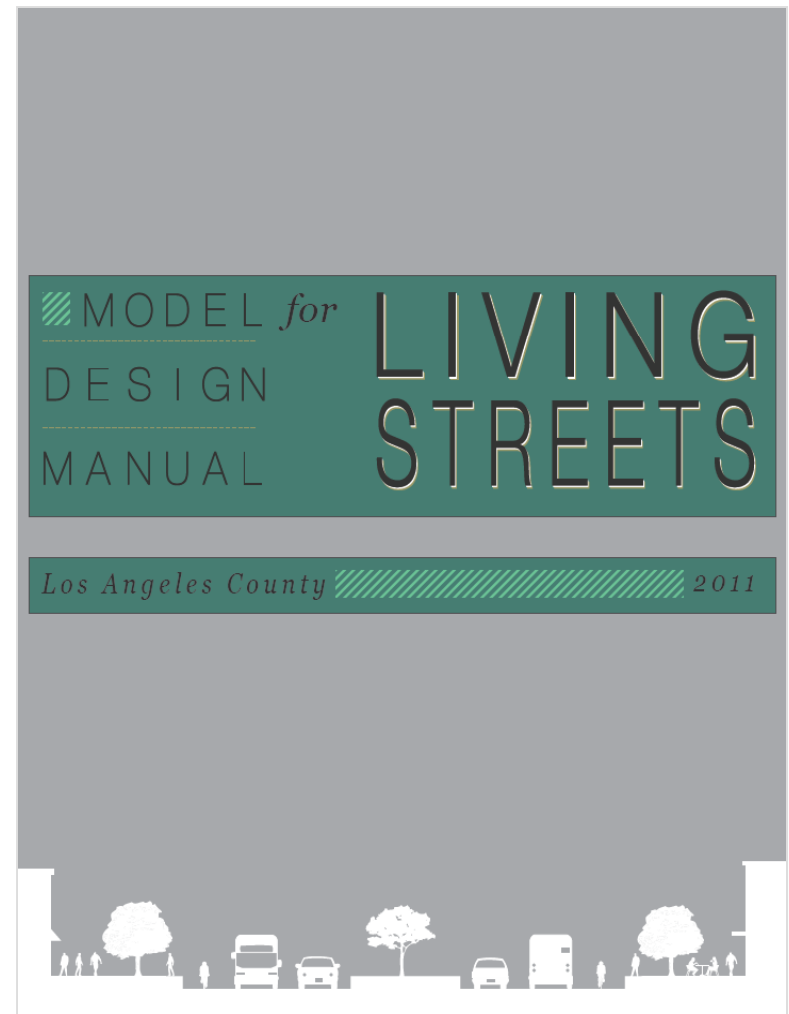
create a safe and efficient transportation system that promotes the health and mobility of all Baldwin Park citizens and visitors



Source: Dan Burden
from National Complete Streets Coalition

Case Study: Baldwin Park

- Complete Streets policy results:
 - City obtained \$1.2M in SR2S and other grant funding
 - Funded bike and ped improvements on five major streets
- Developed *Model Design Manual for Living Streets*

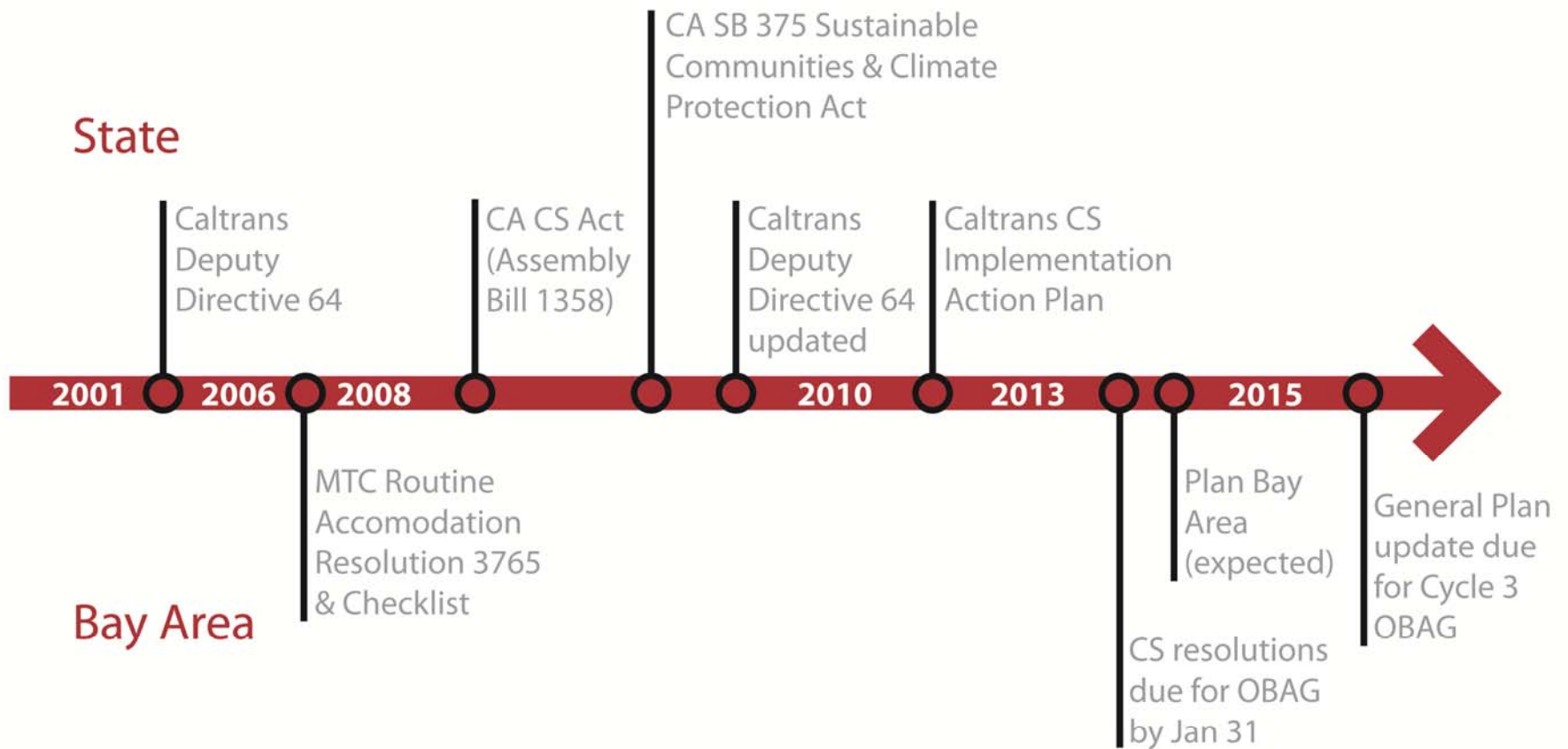


Complete Streets Policy Background



Sean Co, Metropolitan Transportation Commission

Complete Streets in California and the Bay Area



2008 California Complete Streets Act (AB 1358)

- Signed by Gov. Schwarzenegger and co-sponsored by AARP and California Bicycle Coalition
- Cities and counties must include complete streets policies in general plans during any 'substantive revision of the circulation element'
- Office of Planning and Research guidance :
opr.ca.gov/docs/Update_GP_Guidelines_Complete_Streets.pdf



Complete Streets Policies in the Bay Area

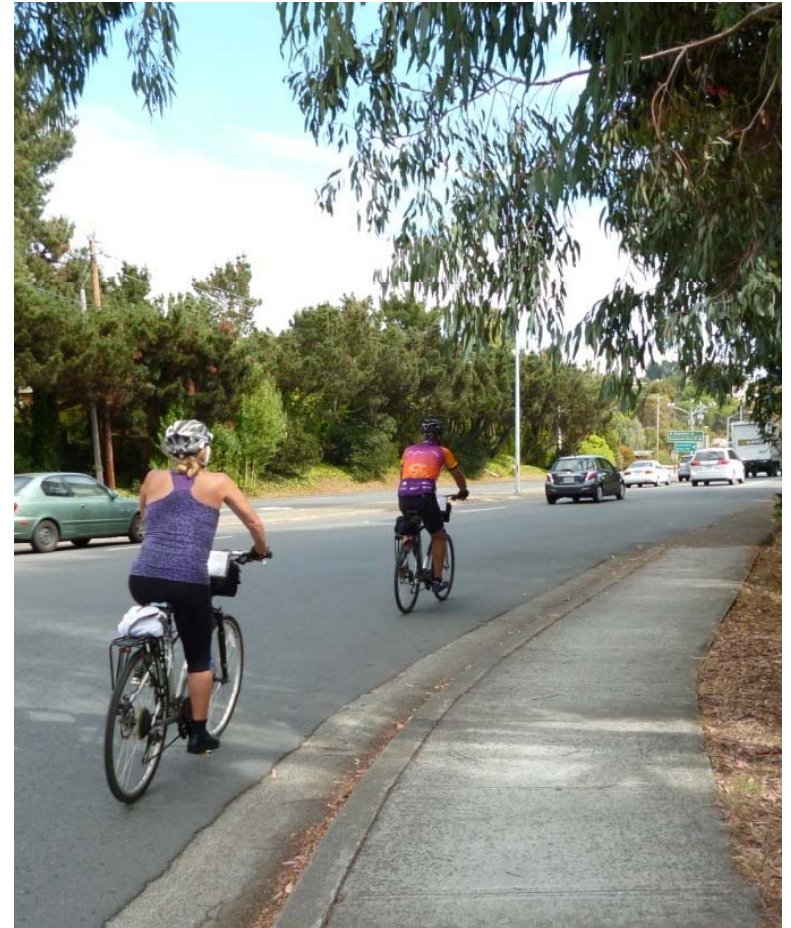
Caltrans Deputy Directive 64-R1

- Adopted 2008
- Provides for the needs of travelers of **all ages and abilities** in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system
- MTC and local policies consistent



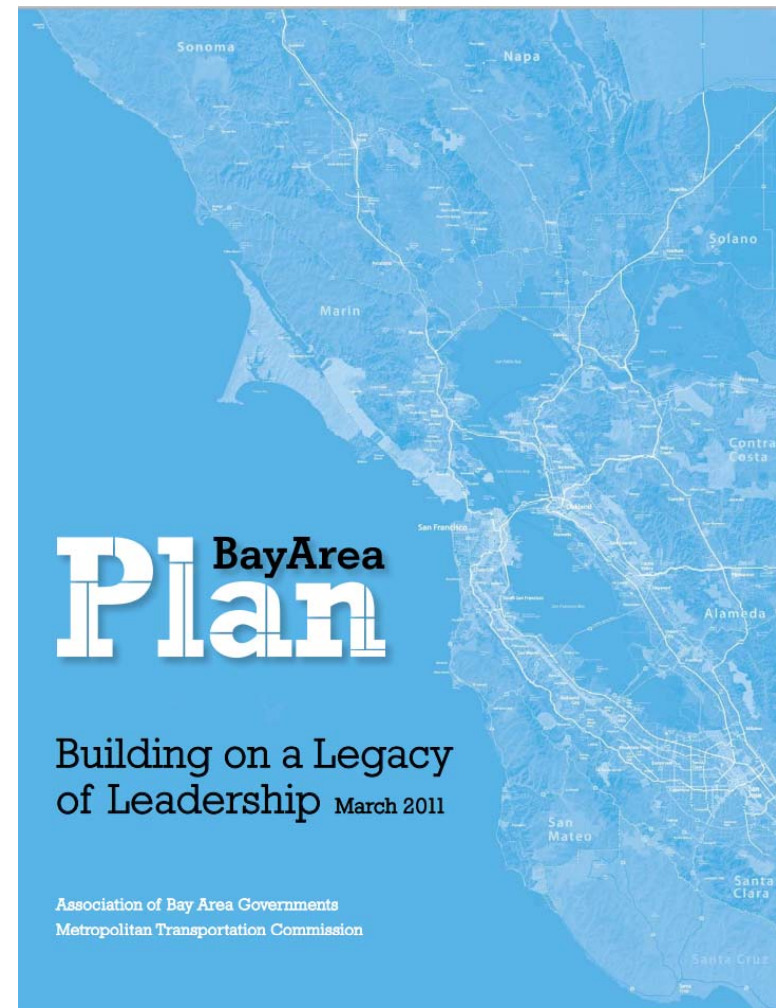
MTC Complete Streets Policy (Routine Accommodations)

- Developed in 2006 from Transportation 2030
- Review of federal, state and local policies to determine how bicycles and pedestrians are accommodated
- Bicycle and pedestrian accommodations are included in 57% of projects
- Study led to checklist for project sponsors



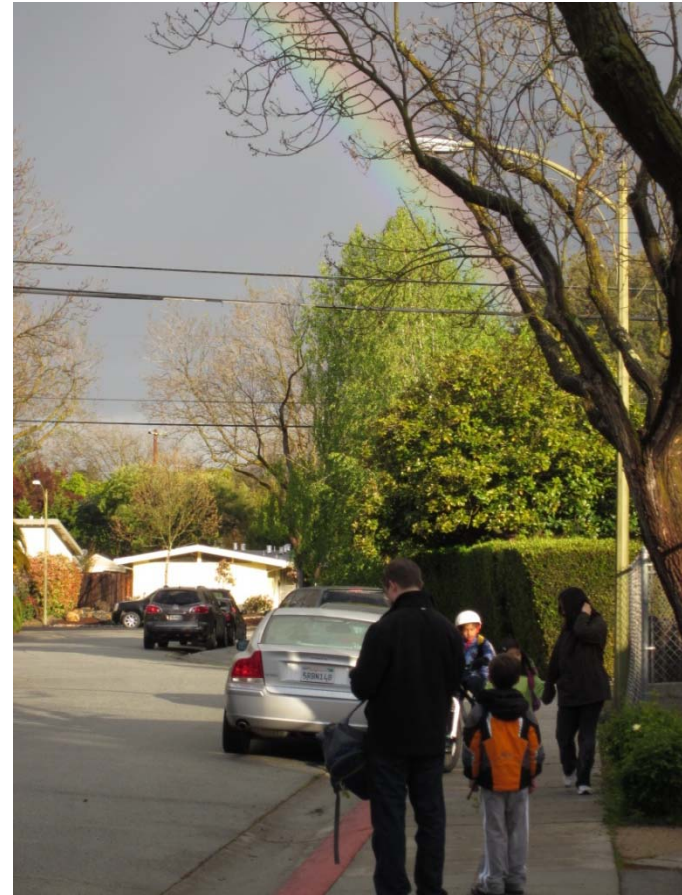
SB 375-Sustainable Communities Strategy – Plan Bay Area

- Preservation of open space and agricultural land
- Links land use and housing to transportation
- Show how development pattern and transportation network can reduce greenhouse gases



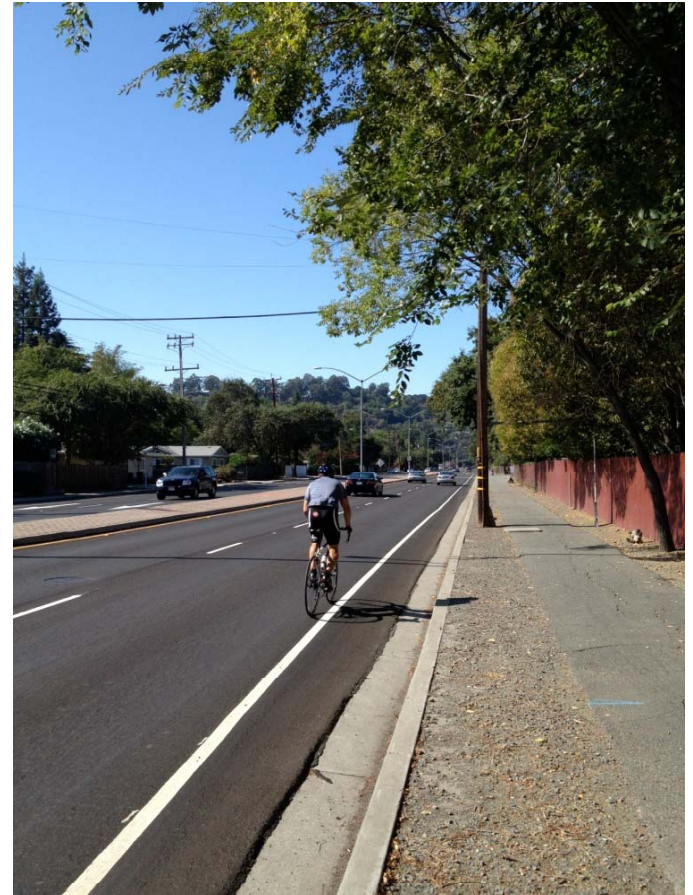
One Bay Area Grant (OBAG)

- Integrates federal transportation program with California's climate law and the Sustainable Communities Strategy
- New funding approach
- Replaced regional funding programs
 - Transportation for Livable Communities
 - Regional Bicycle Network Program
 - Local Streets and Roads
- Increased flexibility for funding road projects



OBAG Goals

- House all forecasted regional population demand by income levels to the year 2040
- Demonstrate achievement of greenhouse gas (GHG) emission reduction targets
- Bay Area targets (set by CA Air Resources Board):
 - 2020: 7% reduction
 - 2035: 15% reduction



OBAG Priorities

Priority Development Areas



Funding distribution to PDAs allocated by population:

- Areas >1M pop = 70% OBAG for PDAs
- Areas <1M pop = 50% OBAG for PDAs

Priority Development Areas in Sonoma County

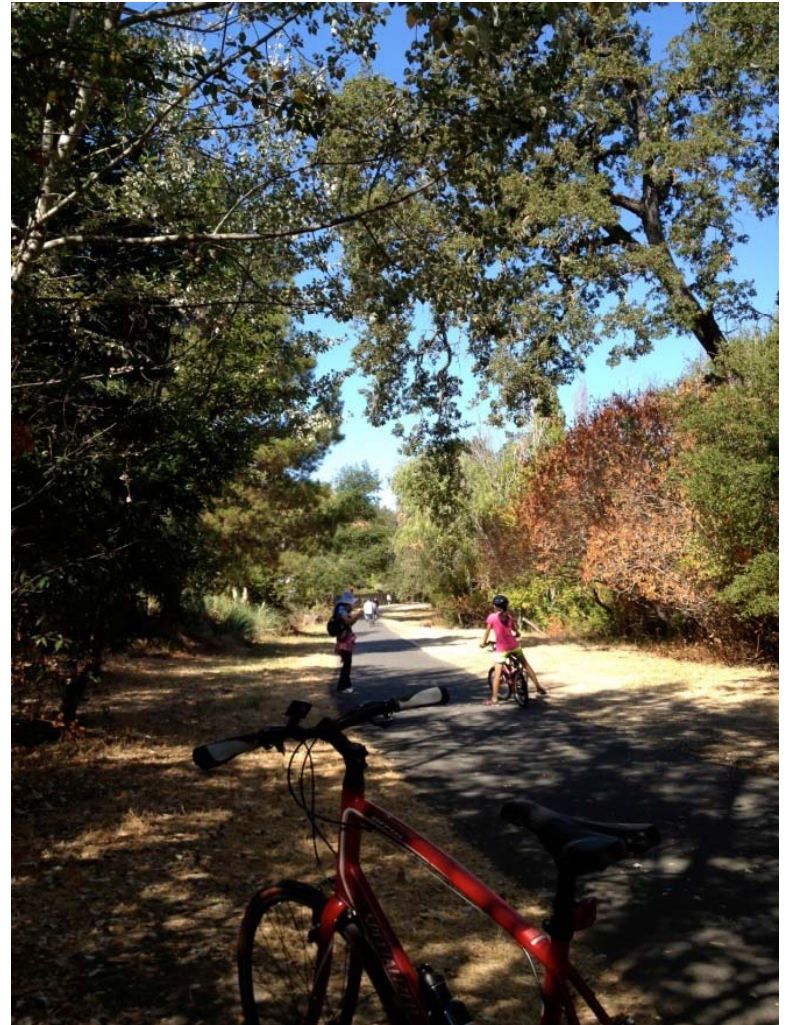
Source: <http://bit.ly/PYGj4b>

OBAG Complete Streets Requirements

Requirement	Deadline	Funding
Complete Streets resolution, or General Plan update	January 31, 2013	FY 2013-14 through 2015-16
General Plan update complies with 2008 Complete Streets Act	TBD	OBAG Cycle following 2015-2016

OBAG Complete Streets Resolution

- To be eligible for OBAG grant funding, cities and counties must:
 - Adopt a resolution by January 31, 2013
 - Address nine required elements
- Context sensitivity
 - Urban vs. rural environments



OBAG General Plan Update


Instead of a resolution, a city or county can be eligible for OBAG by:

- Updating the General Plan to comply with CA Complete Streets Act (2008), or
- Determining that the General Plan already complies with Office of Planning and Research (OPR) guidance (self-certification)



MTC Complete Streets Checklist

- Required for all projects funded by MTC, including OBAG
- Does the project consider all users in project planning and design?



COMPLETE STREETS CHECKLIST

Project title:
County:
Jurisdiction/agency:
Project location:
Contact name:
Contact phone:
Contact e-mail:

Preamble

Recent federal, state and regional policies call for the routine consideration of bicyclists and pedestrians in the planning, design and construction of all transportation projects. These policies—known as “Routine Accommodation” guidelines—are included in the federal surface transportation act (SAFETEA-LU), Caltrans Deputy Directive 64, and MTC Resolution 3765, which calls for the creation of this checklist.

In accordance with MTC Resolution 3765, agencies applying for regional transportation funds must complete this checklist to document how the needs of bicyclists and pedestrians were considered in the process of planning and/or designing the project for which funds are being requested. For projects that do not accommodate bicyclists and pedestrians, project sponsors must document why not. According to the resolution, the checklist is intended for use on projects at their earliest conception or design phase.

This guidance pertains to transportation projects that could in any way impact bicycle and/or pedestrian use, whether or not the proposed project is designed to accommodate either or both modes. Projects that do not affect the public right-of-way, such as bus-washers and emergency communications equipment, are exempt from completing the checklist.

I. Existing Conditions

PROJECT AREA

a. What accommodations for bicycles and pedestrians are included on the current facility and on facilities that it intersects or crosses?

b. If there are no existing pedestrian or bicycle facilities, how far from the proposed project are the closest parallel bikeways and walkways?

c. Please describe any particular pedestrian or bicycle uses or needs along the project corridor which you have observed or of which you have been informed.

d. What existing challenges could the proposed project address for bicycle and pedestrian travel in the vicinity of the proposed project?

DEMAND

What trip generators (existing and future) are in the vicinity of the proposed project that might attract walking or bicycling customers, employees, students, visitors or others?

COLLISIONS

In the project design, have you considered collisions involving bicyclists and pedestrians along the route of the facility? If so, what resources have you consulted?

COMPLETE STREETS CHECKLIST

Page 1

MTC Complete Streets Checklist

- Project sponsors
 - Complete checklist when using MTC funds
 - Required during call for projects

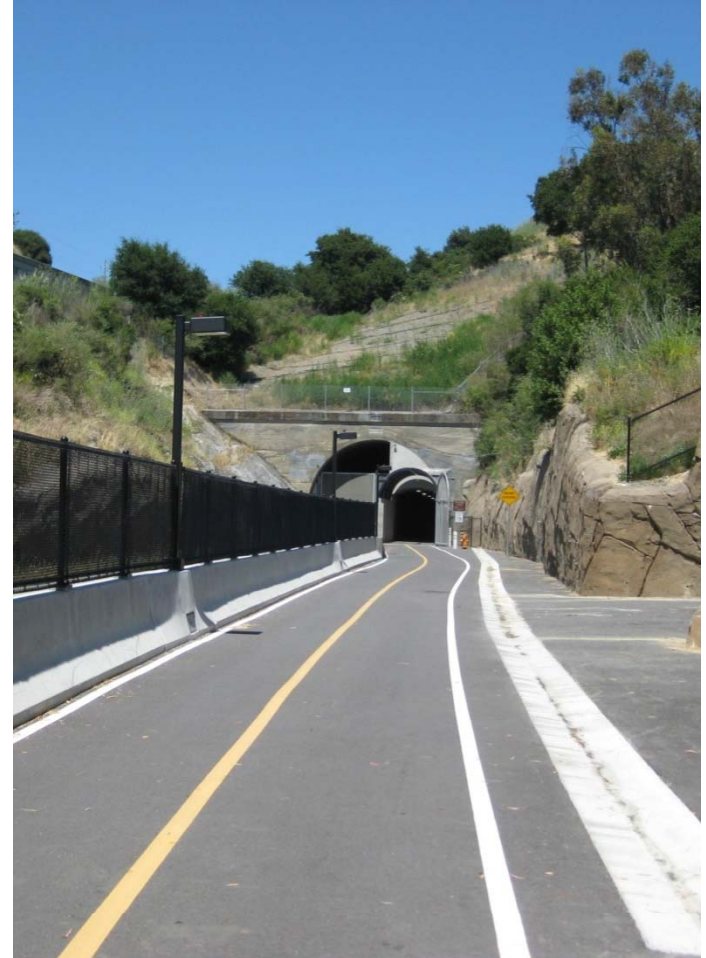


New timeline enables more public involvement

- CMAs
 - Ensure checklists are completed
 - Make checklists available to Bicycle and Pedestrian Advisory Committees

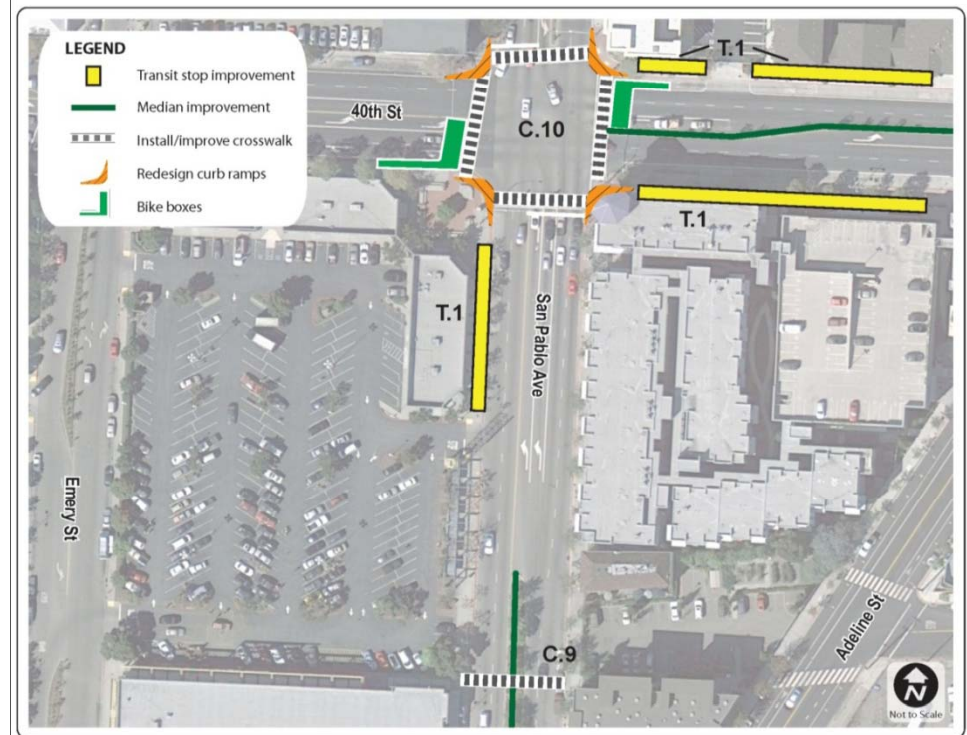
MTC Checklist Description

- Ten questions with many open-ended responses
- 10 to 30 minutes to complete
- Applied to ARRA Local Streets and Roads System Preservation Projects
- 104 checklists completed representing every county



Technical Assistance

- Sample Resolution available for agencies to use in developing their own policies
- Guidance for completing MTC's checklist
- Technical workshops early next year



Source: Emeryville Bicycle and Pedestrian Master Plan (2012)

Pathways to Complete Streets: *MTC Complete Streets Sample Resolution*



Hannah Kapell, Alta Planning + Design

Disclaimer

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Today's Roadmap

- What is a model complete streets policy?
- Local policy development:
Adapting the MTC Complete Streets
Sample Resolution
- Resources



How We Create Model Policy

Criteria	Process	Features
<ul style="list-style-type: none">• Legally sound• Strong• Realistic	<ul style="list-style-type: none">• Survey of existing policies• Analysis of legal issues• Expert review & revision	<ul style="list-style-type: none">• Comments• Tailored to community's need



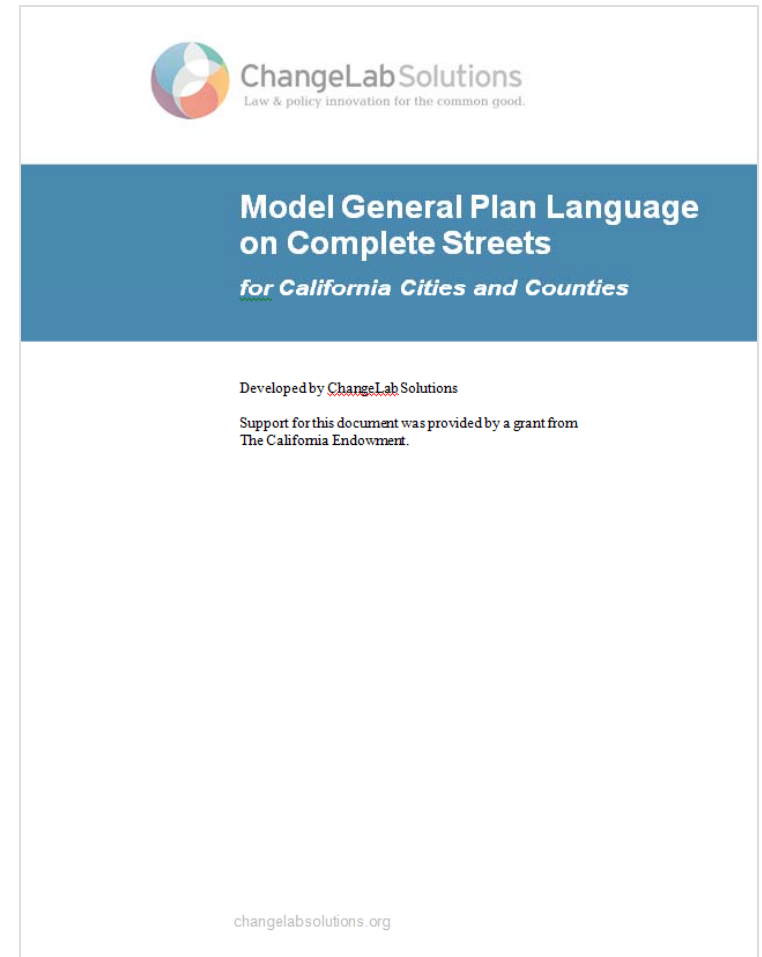
Policy Approach

- **Flexible**
Must adapt to many different kinds of streets & communities
- **Forward-Thinking**
Leverage upcoming project/plan opportunities
- **Strong**
Require accountability (*WHO* must do *WHAT*)

Model Policy Language

- CA & National model policies:
 - Findings
 - Resolution
 - Ordinance
 - General Plan language

Available at
changelabsolutions.org



Before



After



Source: Putting Smart Growth to Work in Rural Communities

Preamble: Findings Section

- Presents data on community needs & context
- Illustrates why policies are needed
- Protects against political/legal challenge



Whereas...

- ...benefits and value for the **public health** and welfare of **reducing vehicle miles traveled...**
- ...planning and coordinated development of Complete Streets infrastructure provides benefits for local governments in the areas of **infrastructure cost savings; public health; and environmental sustainability...**



Whereas...

Complete Streets Resolution (2010)

- ...Promoting pedestrian, bicycle and transit travel as an alternative to automobiles reduces **negative environmental impacts**, **promotes healthy living and is less costly** to the commuter.
- ...**About 1/3 of Americans and 30% of Washingtonians do not drive**, including low-income Americans..., school age children, and older adults.
- ...40% of adults ages 50 and older reported **inadequate sidewalks** in their neighborhoods.



OBAG Complete Streets Elements

MTC's Sample Resolution

Complete Streets Principles

1. Complete Streets Serving All Users
2. Context Sensitivity
3. Complete Streets Routinely Addressed by All Departments
4. All Projects and Phases

Implementation

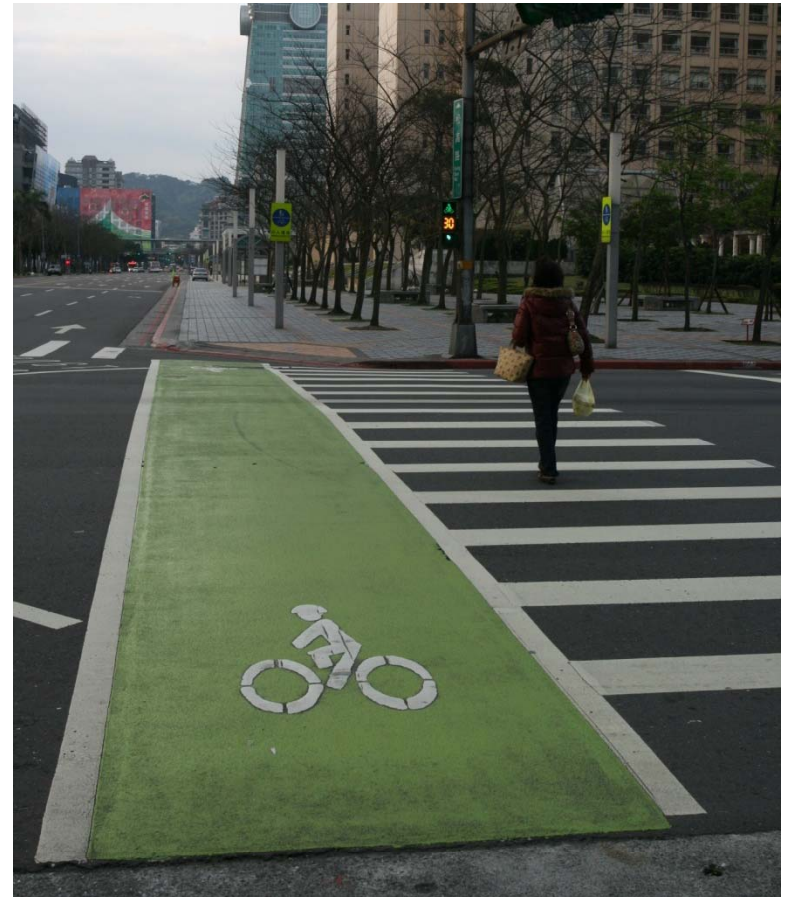
5. Plan Consultation and Consistency
6. Street Network/Connectivity
7. Bicycle and Pedestrian Advisory Committee Consultation
8. Evaluation

Exemptions

9. Leadership Approval for Exemptions

1. Complete Streets Serving All Users

Transportation improvements will be planned, designed, constructed, operated and maintained to support safe and convenient access for all users



Example: MTC Sample Resolution

*[Jurisdiction] expresses its commitment to creating and maintaining Complete Streets that provide **safe, comfortable, and convenient travel**... through a comprehensive, integrated transportation network that serves all categories of users, including **pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families.***



General Plan (2010)

*Support using the concept of complete streets to design, construct, operate, and maintain City and private streets to enable safe, comfortable, and attractive access and travel for **pedestrians, bicyclists, motorists, and transit users of all ages, abilities, and preferences.***



2. Context Sensitivity

Planning and implementation of transportation projects shall:

- Reflect conditions within and surrounding the project area
- Include working with residents and businesses





Example: MTC Sample Resolution

*In planning and implementing street projects, departments and agencies of [Jurisdiction] shall maintain sensitivity to local conditions **in both residential and business districts as well as urban, suburban, and rural areas...***

*...and shall work with **residents, merchants, and other stakeholders** to ensure that a strong sense of place ensues.*



Roadway Design Standards Six-Step Planning Process

1. *Define the existing and future land use and urban design context*
2. *Define the existing and future transportation context*
3. *Identify deficiencies*
4. *Describe future objectives*
5. *Recommend street classification and test initial cross-section*
6. *Describe trade-offs and select cross-section*



3. Complete Streets in All Departments

All departments in the jurisdiction and outside agencies whose work affects the roadway must incorporate a complete streets approach



Example: MTC Sample Resolution

*All relevant departments and agencies of [Jurisdiction] **shall work towards** making Complete Streets practices a routine part of everyday operations...*

*...and **work in coordination** with other departments, agencies, and jurisdictions to maximize opportunities for Complete Streets, connectivity, and cooperation.*



Ordinance (2010)

*This policy requires **consideration** of complete streets elements by the Planning and Zoning Commission and Board of Zoning Appeals.*

*Accordingly, the city **strongly encourages all developers and builders** to obtain and comply with, as appropriate, these standards.*



4. All Projects/Phases

The policy will apply to all roadway projects including:

- New construction, reconstruction, retrofits, repaving, rehabilitation, or changes in the allocation of pavement space on an existing roadway
- New privately built roads and easements intended for private use



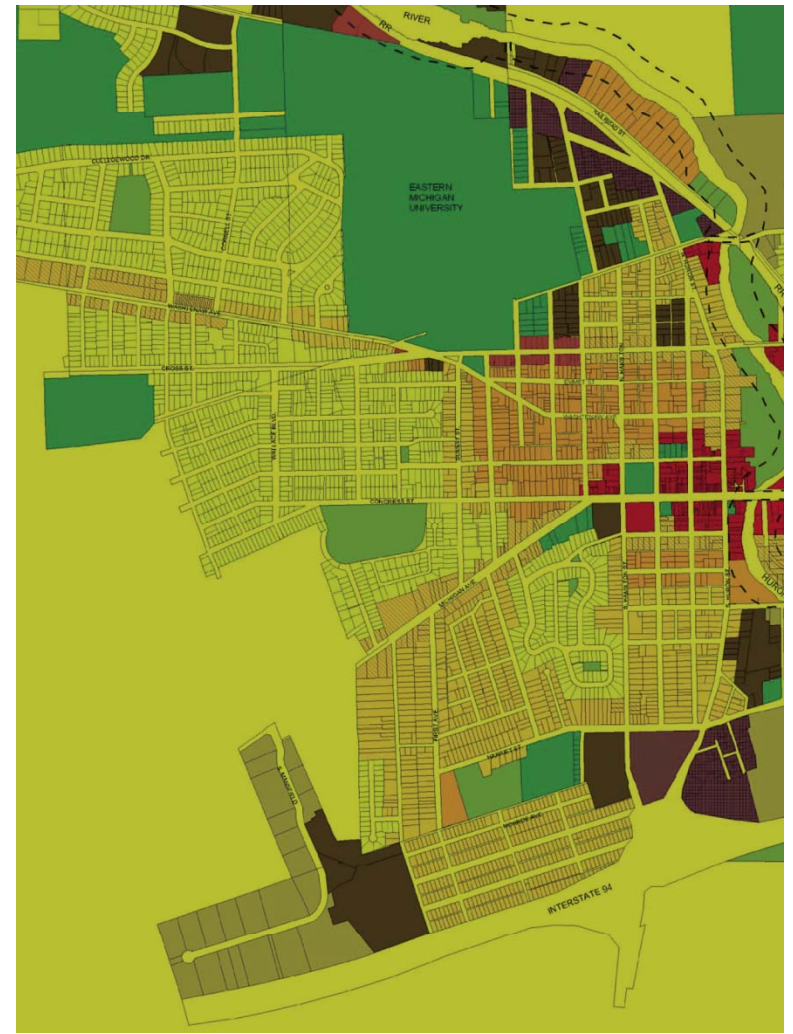
Example: MTC Sample Resolution

*Complete Streets infrastructure... shall be incorporated into all planning, funding, design, approval, and implementation processes for any **construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets...***



5. Plan Consultation

Proposed improvements should be evaluated for consistency with all local bicycle, pedestrian and transportation plans



Example: MTC Sample Resolution

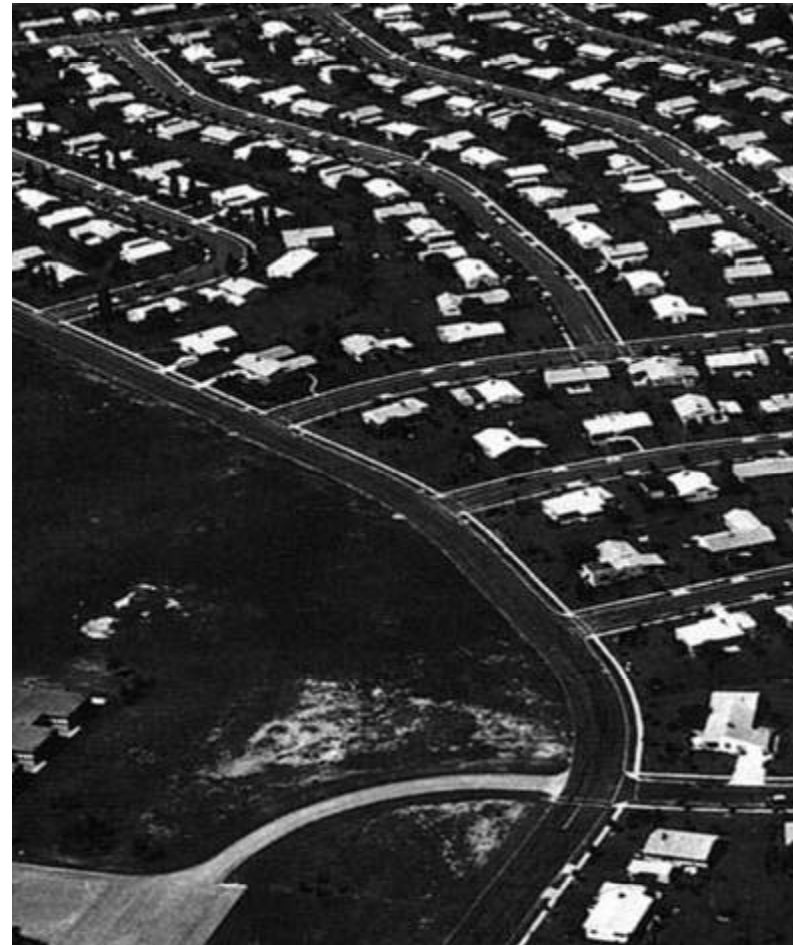
*Maintenance, planning, and design of projects affecting the transportation system shall be consistent with **local bicycle, pedestrian, transit, multimodal, and other relevant plans**, except that where such consistency cannot be achieved without negative consequences...*

Implementation tip:

Specify that these and other plans shall also be amended to reflect complete streets approach.

6. Street Network/Connectivity

The transportation system should provide a connected network of facilities accommodating all modes of travel, between popular destinations



Example: MTC Sample Resolution

*As feasible, [Jurisdiction] shall incorporate Complete Streets infrastructure into existing streets... with the particular goal of creating a **connected network of facilities** accommodating each category of users, and **increasing connectivity across jurisdictional boundaries** and for existing and anticipated future areas of travel origination or destination.*



General Plan (2008)

*Work toward achieving a **complete, functional and interconnected pedestrian network**.*

- 1. Close gaps in the sidewalk network.*
- 2. Provide convenient pedestrian connections between land uses, including shortcuts where possible.*
- 3. Design grading plans to provide convenient and accessible pedestrian connections from new development to adjacent uses and streets.*



7. BPAC Consultation

Input shall be solicited from local bicycle and pedestrian advisory committees (BPACs) or similar public advisory group in an early project development phase to verify bicycling and pedestrian needs for projects



Example: MTC Sample Resolution

*... Transportation projects shall be reviewed by the Bicycle and Pedestrian Advisory Committee early in the planning and design stage, to provide... an **opportunity to provide comments and recommendations** regarding Complete Streets features to be incorporated into the project.*



8. Evaluation

The jurisdiction will establish a means to collect data and indicate how the jurisdiction is evaluating implementation of complete streets policies



Example: MTC Sample Resolution

*All relevant agencies or departments shall perform evaluations of how well the streets and transportation network of [Jurisdiction] are serving each category of users by **collecting baseline data and collecting follow-up data on a regular basis.***



Example: Baldwin Park, CA

Administrative Policy (2011)

The City will evaluate this Complete Streets Policy using the following performance measures:

- *Miles of on-street bikeways* defined by streets with clearly marked or signed bicycle accommodation.
- Miles of streets with *pedestrian accommodation* (goal – all)
- Number and severity of pedestrian-vehicle and bicycle-vehicle *crashes*.
- Track *Fitnessgram data* of Baldwin Park Unified School Dist. Students



9. Leadership Approval for Exemptions

Plans/projects that seek exemptions from complete streets approach must provide documentation on why all modes were not included in the project, to be signed off by the Public Works Director or equivalent



Example: MTC Sample Resolution

*Projects that seek Complete Streets exemptions must provide **written finding** of why accommodations for all modes that were not included in the project and **signed off** by the Public Works Director or equivalent high level staff person. Projects that are granted exceptions must be **made publically available for review**.*



Exceptions Provide for Flexibility and Accountability

- **Flexibility**

Exceptions are very broad

- **Accountability**

Exceptions can only be exercised where there is written approval by a senior manager

Implementation Tip:

Specify that data and documentation supporting the need for the exception are required.

Exceptions Process

Complete Streets infrastructure “may be excluded upon written approval by [Senior Manager], where documentation and data indicate that...”



Exceptions Process

- Bicyclists or pedestrians barred by law
- Disproportionate cost
- Documented absence of current and future need
- Significant adverse effects outweigh positive effects of the infrastructure



Example: Bloomington/Monroe County, IN

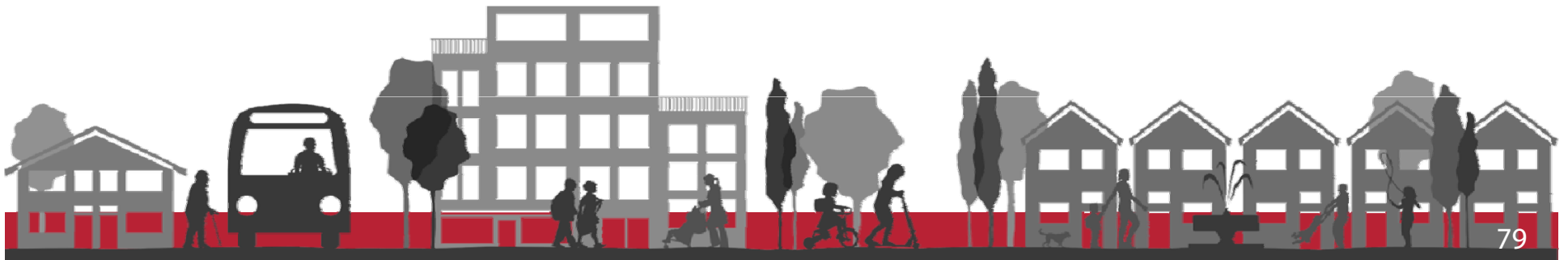
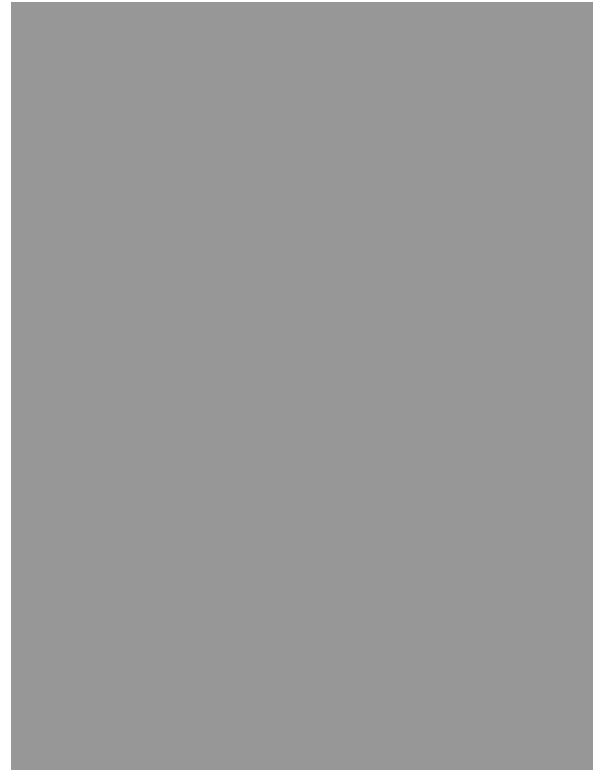
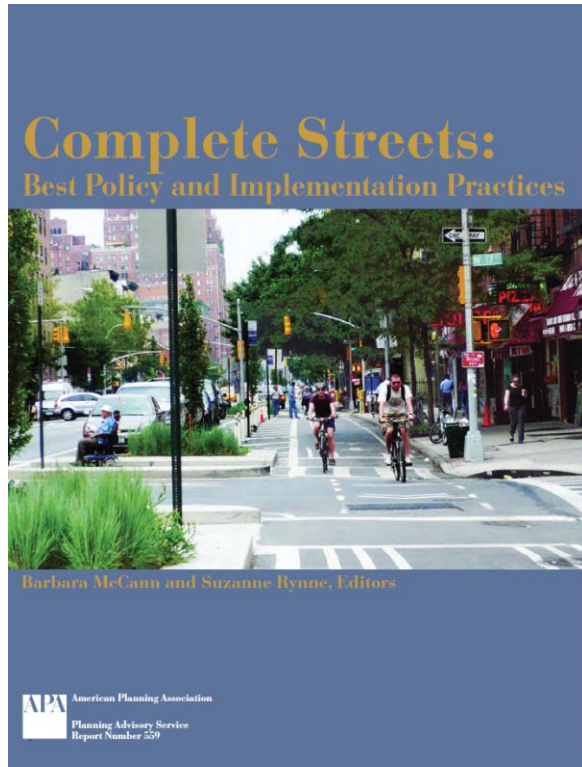
MPO Policy (2009)

The Policy Committee may allow such an exemption under certain circumstances, including the following:

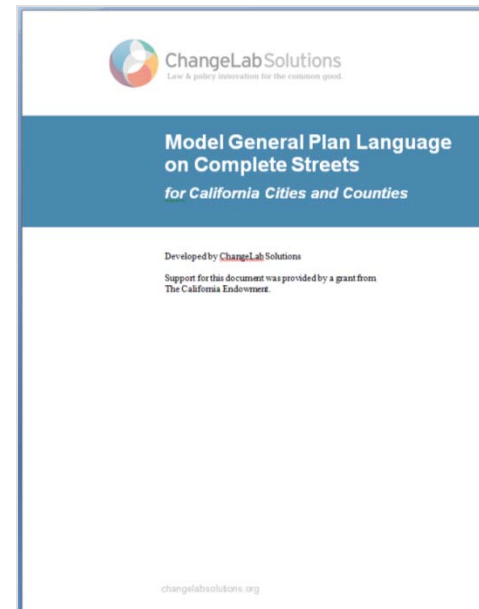
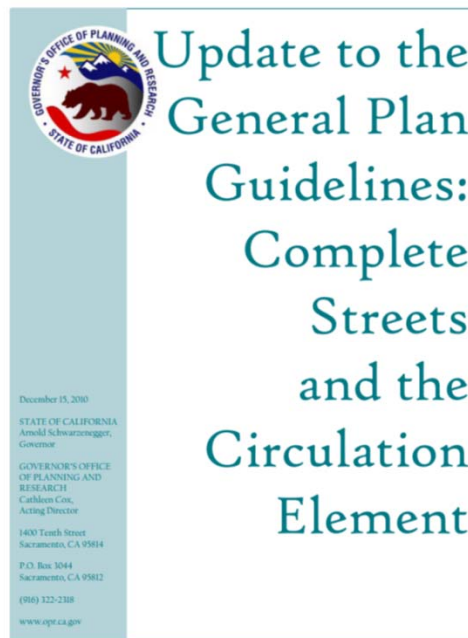
- 1. The project involves a roadway that bicyclists and pedestrians are **prohibited by law** from using*
- 2. There are extreme **topographic** or **natural resource** constraints*
- 3. When other available means or factors indicate an **absence of need** presently and in the 20-or-more year horizon*
- 4. A **reasonable and equivalent alternative** already exists for certain users or is programmed in the TIP as a separate project*



Resources



Integrating Complete Streets Policy Language into Plans



Brett Hondorp, Alta Planning + Design

Why Include CS in a General Plan?

- Promote street design and land use policies improve safety and mobility options
- Provide guidance and specific implementation actions for CS policies
- Required by California law and by MTC for OBAG Cycle 3 eligibility



Office of Planning and Research (OPR)

Guidance

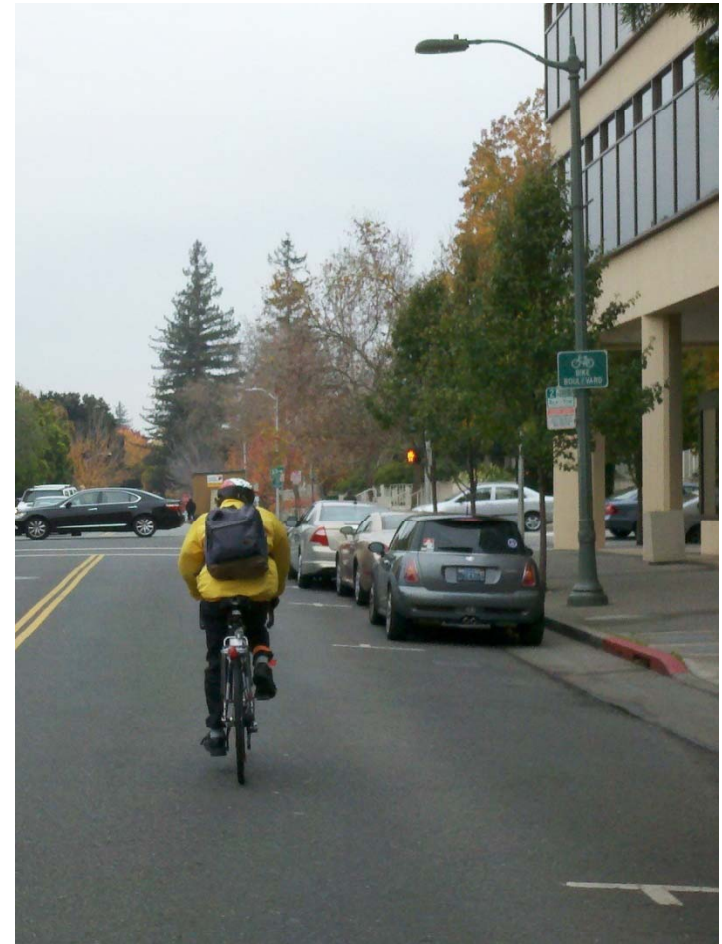
- GC 65302(b)(2)(A):

*Commencing January 1, 2011, upon substantial revision of the circulation element, the legislative body shall **modify the circulation element** to plan for a **balanced, multimodal transportation network that meets the needs of all users of the streets**, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.*

- *General Plan Guidelines Circulation Element updated to reflect Complete Streets*

Integrating CS into Local Plans

- General Plan
 - Overarching Vision Statement
 - Each Element has Goals, Objectives and Implementing Policies
 - Integrated into other elements
- Other local plans
 - Bicycle and Pedestrian Plans
 - Zoning / Subdivision
 - Street Standards

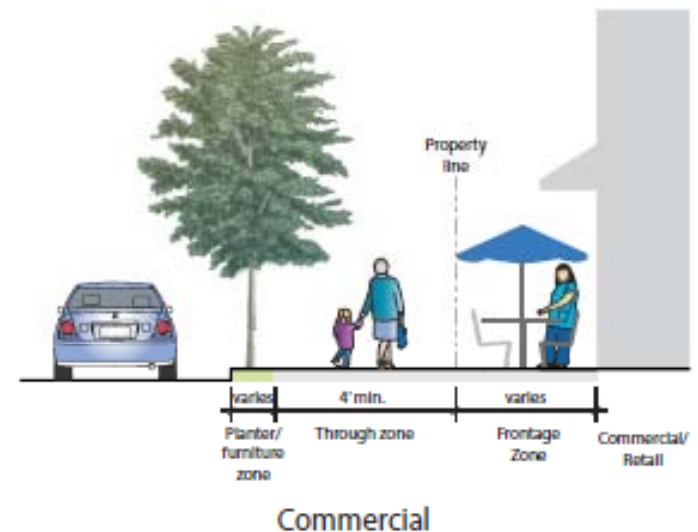


Vision Statement

The community of [Jurisdiction] envisions a transportation system that:

- Encourages healthy, active living
- Promotes transportation options and independent mobility
- Increases community safety and access to healthy food
- Reduces environmental impact
- Mitigates climate change
- Supports greater social interaction and community identity

Sidewalk Zones:



Circulation Element:

Example Goal Statement

Provide “Complete Streets” that are safe, comfortable, and convenient routes for walking, bicycling, and public transportation **to increase use of these modes** of transportation, enable active travel as part of daily activities, reduce pollution, and meet the needs of all users of the streets, including bicyclists, children, persons with disabilities, pedestrians, users of public transportation, seniors, youth, and families, while continuing to **maintain a safe and effective transportation system for motorists** and movers of commercial goods consistent with the other goals, objectives, and policies of this plan.

General Plan Circulation Element (1998) Goals:

- Strive to Achieve Equality of Choice Among Modes
- Increase the Availability and Use of Transit
- Increase Bicycling as a Transportation Mode

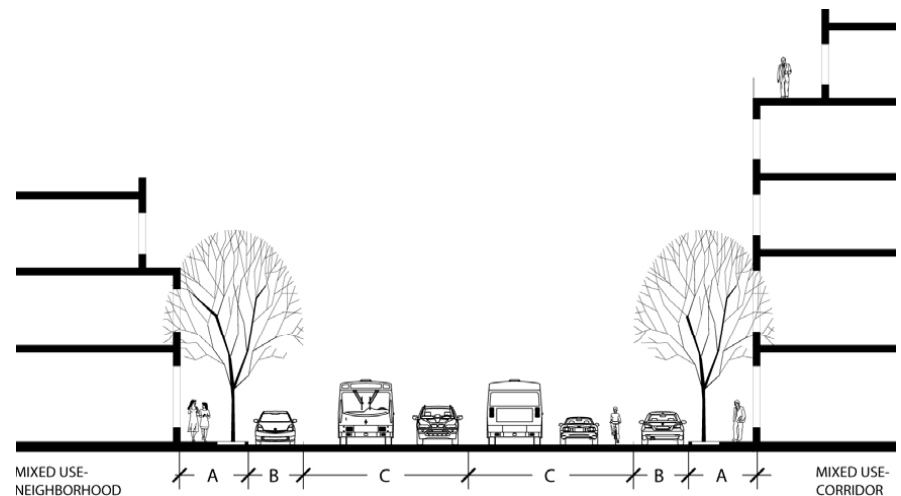


Source: Santa Barbara, CA (Dan Burden, Walkable and Livable Communities Institute, Inc.)

Circulation Element:

Example Objective Statements

- Integrate CS infrastructure and design features into street design and construction
- Make CS practices a routine part of [Jurisdiction]’s everyday operations

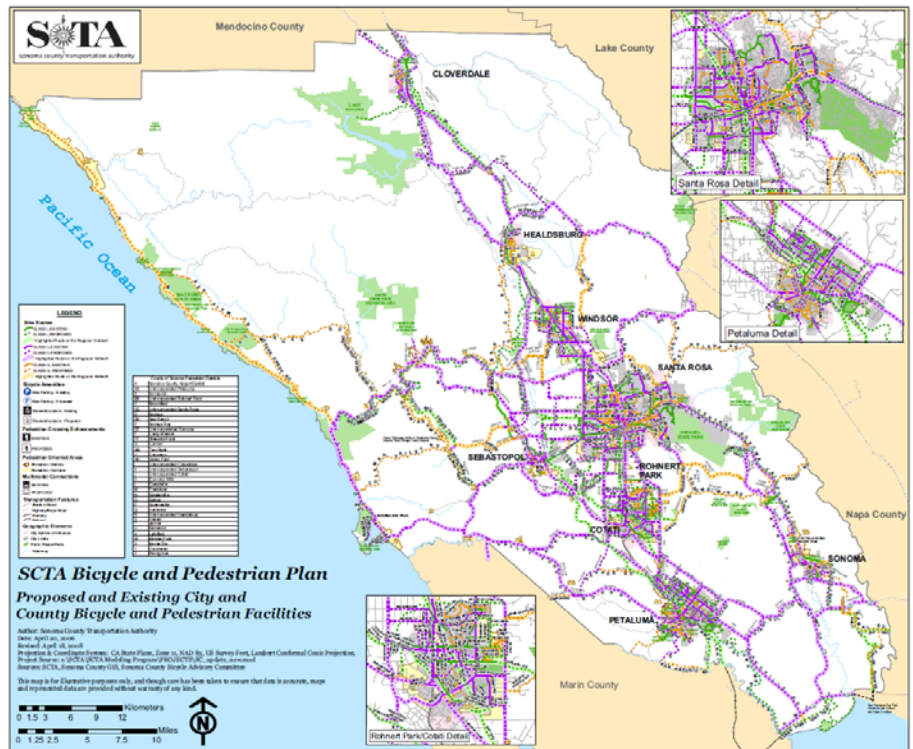


Sample Transit Street Cross-Section

Source: Redwood City General Plan

Circulation Element: Example Objective Statements

- Plan and develop a bicycle and pedestrian transportation network
- Promote safety of bicyclists, pedestrians, and public transportation
- Make public transportation an interconnected part of the transportation network

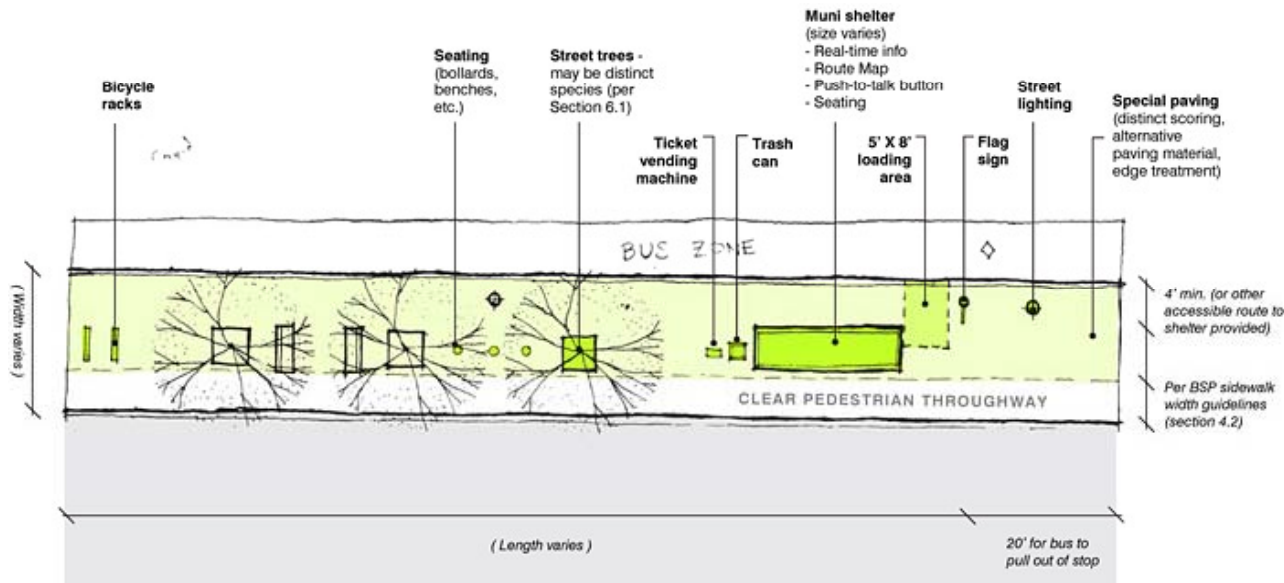


Proposed and Existing City and County Bicycle and Pedestrian Facilities

Source: SCTA Bicycle and Pedestrian Plan

Circulation Element: Example Implementing Policies

- Define CS infrastructure – street configuration, crossings, support facilities
- Adopt or revise specific codes, guidelines or regulations



Source: San Francisco Better Streets Plan

Facilities in Rural Areas

OPR Guidance:

- May have large distances between destinations
- Bicycle facilities may include roadway shoulders and/or state highway routes
- Pedestrian facilities may include roadway shoulders, benches, and covered bus stops



Facilities in Urban Areas

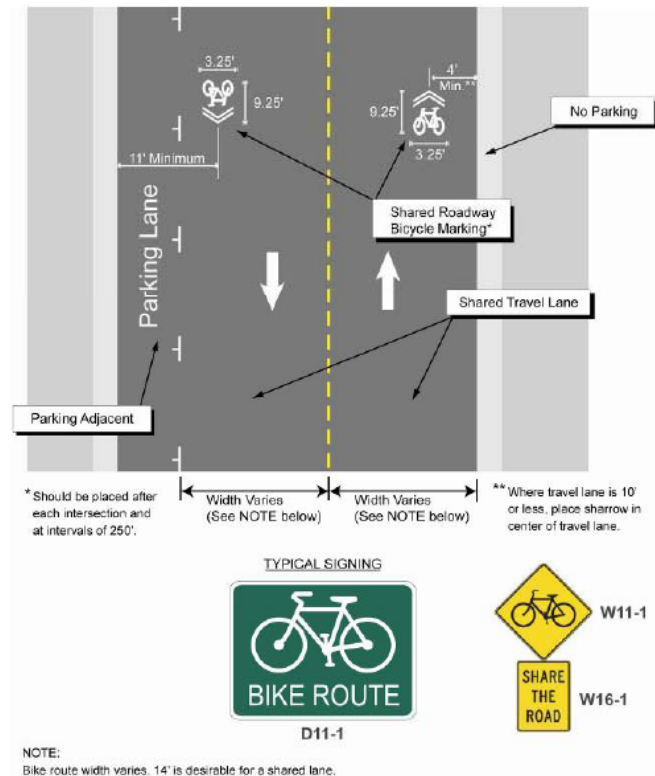
- Sidewalks
- Crosswalks
- Curb extensions
- Plazas
- Transit service/stations
- Bicycle facilities



Source: NACTO Urban Bikeway Design Guide

General Plan Circulation Element 2010

*...the Redwood City General Plan organizes streets and other transportation facilities according to **typologies** that consider the context and prioritize different travel modes for each street. Together, the typologies provide a **network of “complete streets”** to accommodate all types of local transportation modes...*



Shared Lane Marking Section

Source: Redwood City General Plan

Circulation Element:

Example Implementing Policies

- Identify measurable performance standards and collect data
 - Current mode split (Census/ACS data, transit data, bicycle and pedestrian counts)
 - User preferences (surveys)
 - SWITRS crash data
 - Transportation needs: households without vehicles, persons with disabilities, children, etc.



General Plan (2011)

*Improve the existing street network to **minimize travel times** and **improve mobility** for transit, bicycle, and walking trips between new projects and surrounding land uses to reduce vehicle trips.*



Bike Plan 2020 Goal:

- Expand bikeway network from 250 to 500 miles
- Increase bike trips from 1% to 5%
- Reduce bike collision rate by 50%
- Add 5,000 bike parking spaces
- Achieve “Gold” bike-friendly community ranking

Circulation Element:

Example Implementing Policies

- Incorporate improvements into routine maintenance:
 - Pavement resurfacing
 - Restriping
 - Signal operations



Circulation Element:

Example Implementing Policies

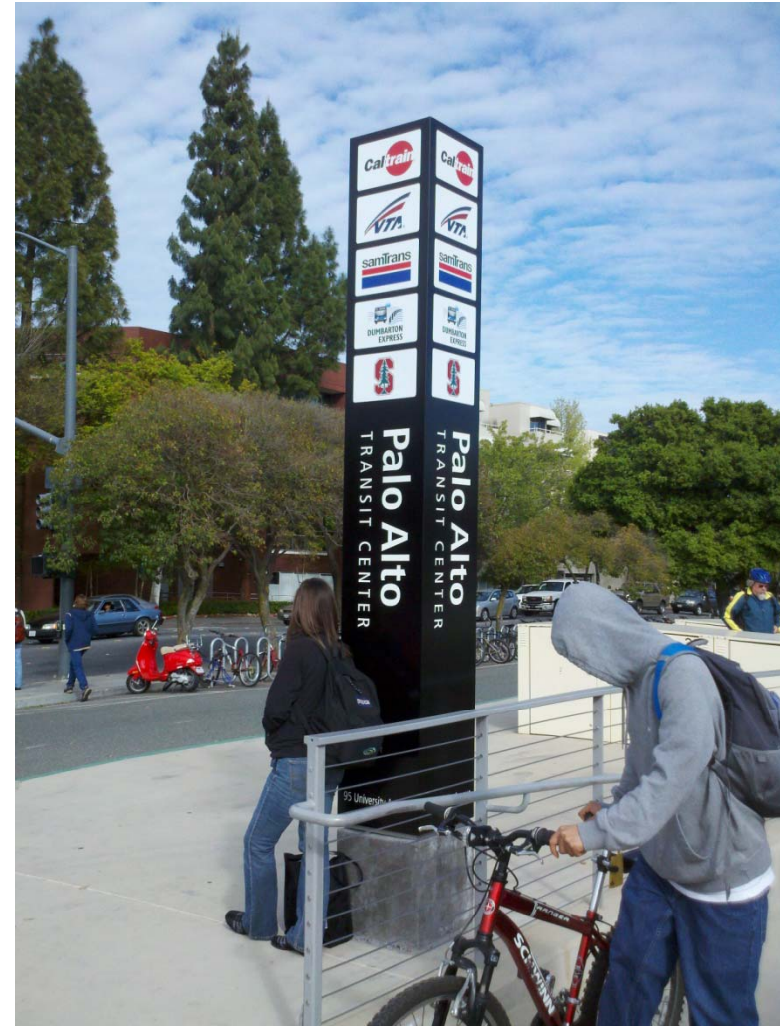
- Develop policies and tools to improve CS practices
 - Pedestrian crossings policy
 - Revise zoning & other code language (e.g. bicycle parking requirements)



Circulation Element:

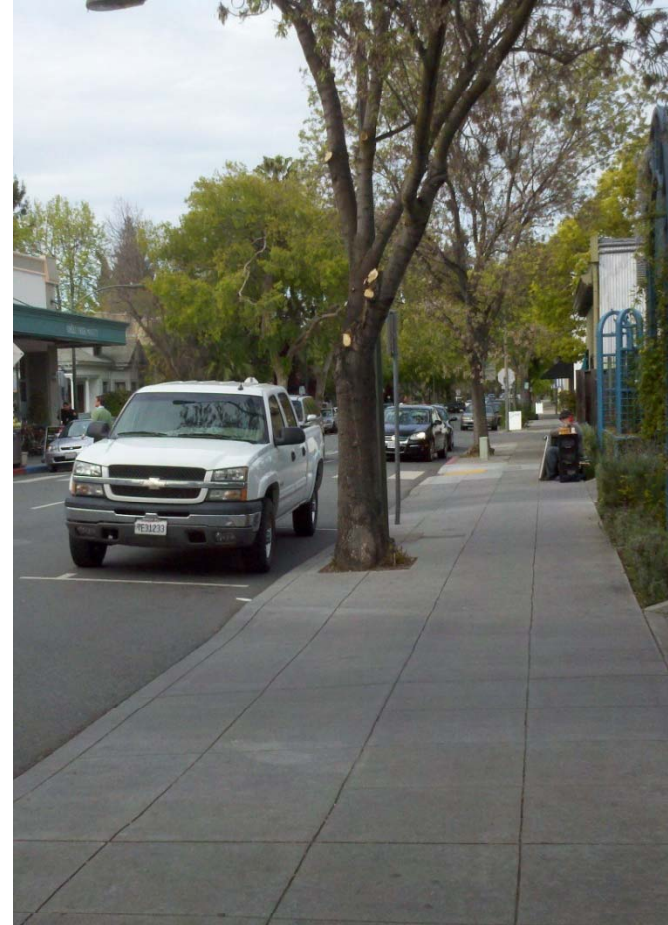
Example Implementing Policies

- Promote connections between modes
- Make training available to staff
- Establish performance measures
- Develop funding strategies



CS in Land Use Elements

- Land use patterns and decisions encourage multi-modal choices
 - Land use mix that promotes multiple modes to access destinations
 - Streetscape standards that result in pleasant pedestrian environments
 - Transit-oriented development



Example: San Ramon, CA

Integration of Land Use and Transportation Policy 5.6-I-6:
*Encourage new development to include a **mix of uses** and **Complete Streets concepts** that will allow people to walk and bike between destinations and reduce the amount of automobile vehicle miles traveled*



CS in Public Facilities/Capital Improvements Elements

- Provide children with safe and appealing opportunities for walking and bicycling to school
 - Encouragement programs
 - Enforce traffic laws near schools
 - Reduce speed limits near schools
 - Promote neighborhood school siting



CS in Open Space or Parks and Recreation Elements

- Increase use of parks and open space for physical activity and encourage residents to access parks by multiple modes
 - Network of bike/ped routes to parks
 - Traffic calming, intersection treatments, & transit stops near parks
 - Bicycle parking



CS in Community Health Elements

- Integrate physical activity into daily routines
 - Access to destinations: recreational areas, schools, housing, employment, etc.
 - Provide comfortable environments and destinations



Complete Streets in Other Plans & Policies

- Transit Plans
- Bicycle & Pedestrian Plans
- Streetscape Plans
- Zoning Ordinances
- Design & engineering standards
- Bicycle parking
- Safe Routes to School



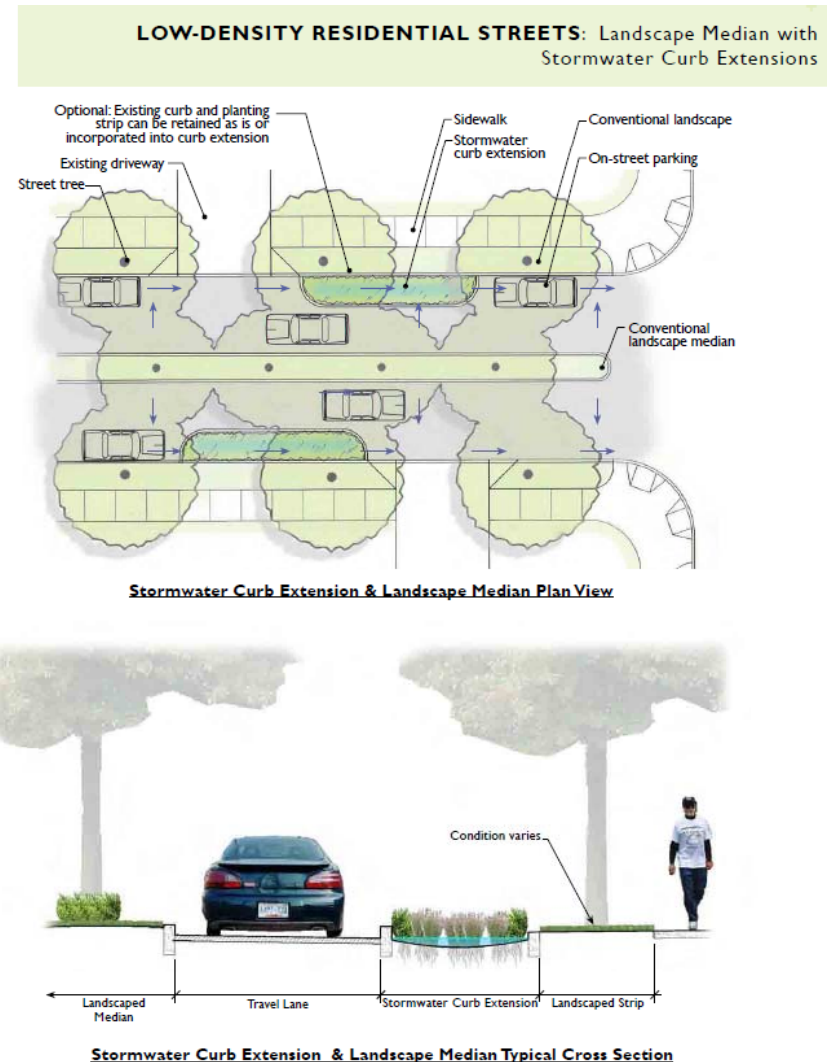
Bicycle and Pedestrian Plans

- Bicycle & pedestrian plans provide tools & techniques for implementing CS
 - Promote supportive policies
 - Define a network of improvements
 - Identify performance measures



Street Design Standards

- Connection with Level of Service standards
- By street classification
- By land use
- By neighborhood/district
- Context sensitivity



Source: San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook

Example: San Francisco, CA

San Francisco Better Streets Guide



Case Study: Ocean Park Boulevard, Santa Monica

- Safety concerns
 - Proximity to neighborhood business district and schools
 - Community meeting identified need to reduce motorists speeds and improve bike/ped crossings



*Source: City of Santa Monica
from National Complete Streets Coalition*

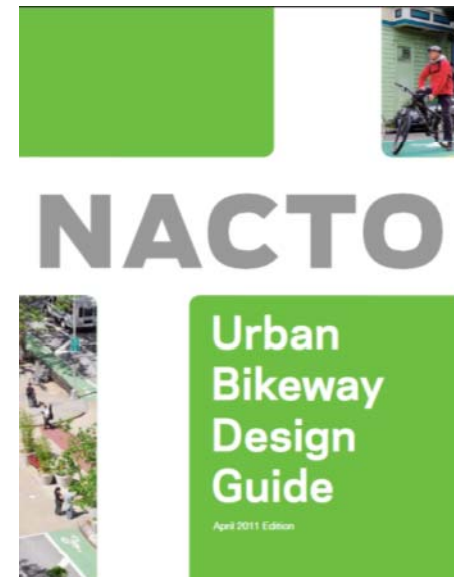
Case Study: Ocean Park Boulevard, Santa Monica

- Pilot project
 - Road diet: 4 to 2 lanes with center turn lane, bike lane
 - Crashes reduced 65%
 - 85 percentile speed now 27 mph
- General Plan policy language supports
 - *high-quality bicycle facilities...with the aim of increasing the number of people who use bicycles for everyday transportation*



Source: City of Santa Monica
from National Complete Streets Coalition

Steps to Implementing Complete Streets Policies



David Parisi, Parisi Associates Transportation Consulting

Implementation



Disciplines Involved in Developing Complete Streets Plans

- Planning
- Zoning
- Public Works
- Public Health
- Neighborhood Traffic Calming Programs
- Transit Agencies
- Environmental/Green Streets
- Safety Campaigns/Safe Routes to School

Administrative Policy (2011)

- (A) *Advisory Group. The City will establish an **inter-departmental advisory committee** to oversee the implementation of this policy ...*
- (B) *Inventory. The City will maintain a **comprehensive inventory** of the pedestrian and bicycling facility infrastructure ... and will prioritize projects to eliminate gaps in the sidewalk and bikeways networks...*



Transportation Infrastructure Policy 5.3-I-3

Coordinate the implementation of Complete Streets concepts, as appropriate, with ongoing transportation and congestion relief programs such as the

TDM Program

Street Smarts Traffic Safety Program

Residential Traffic Calming Program

Safe Routes to School Program

TRAFFIX Program

Outreach and Political Support

- Advisory Committees
- Public/Private Partnerships
 - Integrate business community
 - Document economic and health benefits
- Elected officials
- Public support
 - Safe Routes to School
 - Transit, biking, and walking advocates



Example: Citrus Heights, CA

City of Citrus Heights

INCORPORATED JANUARY 1, 1997



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- ▶ Volunteer Opportunities
- ▶ Current Openings
- ▶ Upcoming Events
- ▶ Holiday Schedule
- ▶ Photo Album
- ▶ Press Releases
- ▶ Community Newsletter
- ▶ E-Notifier
- ▶ Spotlight On Services
- ▶ Traffic Counts
- ▶ Open Bids, RFPs and RFQs

[What's New](#) » [Citrus Heights Complete Streets](#) » [Complete Streets Projects](#)

Complete Streets Projects







Complete Streets Philosophy

The City of Citrus Heights incorporates the complete streets philosophy into all construction projects. Mobility for all users of the transportation network - including not just autos but also transit users, bicyclists, and pedestrians of all ages and abilities - is an important issue for city residents. While the high volume of regional traffic passing through Citrus Heights benefits residents by increasing business activity, decisions for roadway improvements must give equal consideration to non-auto users of the roadways.









Level of Service

LOS conventionally used to evaluate motor vehicle travel speed and delay

LEVELS OF SERVICE for Multi-Lane Highways			
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		60	Highest level of service. Traffic flows freely with little or no restrictions on maneuverability. No delays
B		60	Traffic flows freely, but drivers have slightly less freedom to maneuver. No delays
C		60	Density becomes noticeable with ability to maneuver limited by other vehicles. Minimal delays
D		57	Speed and ability to maneuver is severely restricted by increasing density of vehicles. Minimal delays
E		55	Unstable traffic flow. Speeds vary greatly and are unpredictable. Minimal delays
F		<55	Traffic flow is unstable, with brief periods of movement followed by forced stops. Significant delays

Source: 2000 HCM, Exhibit 21-3, Speed-Flow Curves with LOS Criteria for Multi-Lane Highways

LEVELS OF SERVICE Unsignalized Intersections <small>Four-Way Stop</small>			
Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
A		<10	Very short delays
B		10-15	Short delays
C		16-25	Minimal delays
D		26-35	Minimal delays
E		36-50	Significant delays
F		>50	Considerable delays

Source: 2000 HCM, Exhibit 17-22, Level of Service Criteria for AWSC Intersections

Level of Service

- Peak period vehicle LOS is often the only LOS metric used
- Favors roadway expansion, which can negatively affect:
 - The environment
 - Community character
 - Smart growth
 - All other modes of travel



Source: National Complete Streets Coalition

Multimodal Level of Service

- Balanced approach that can account for a wider range of users:
 - Motor vehicles
 - Public transit
 - Bicycle
 - Walking
 - Other
- MMLOS indicators can respond to users' preferences and expand range of solutions

Multimodal Level of Service

For example, travelers may accept higher auto delays for increased convenience, comfort and improvements for other modes



MMLOS Guidelines

- Numerous guidelines recently developed or under development
- Methods vary from highly technical and data intensive to simpler with limited data needs
- Examples include ...

Motor Vehicles

- Average travel speed
- Average delays
- Number of stops per mile

Or...

- Automobile Trips Generated (ATG)



Public Transit

- Frequency of service
- Travel speed
- Availability
- Reliability
- Accessibility
- Passenger load
- Perceived safety and security
- Transit stop amenities
- And more ...



Bicycle

- Network connectivity
- Type of facility
- Width of facility
- Traffic interaction
- Number and type of crossings
- Topography
- Sense of security
- Wayfinding
- And more...



Walking

- Type of facility
- Width of facility
- Pedestrian density
- Perceived separation from traffic
- Street crossing widths
- Topography
- Sense of security
- Amenities
- And more ...



Case Study: Lancaster, CA

- Unpleasant downtown environment
 - 4-lane road with travel speeds of 40-50 mph
 - Difficult crossings



*Source: City of Lancaster
from National Complete Streets Coalition*

Case Study: Lancaster, CA

- Street improvements
 - Road diet: 4 to 2 lanes with center 'rambla', widened sidewalks, street trees, etc.
 - Removed 6 traffic signals
 - Public investment of \$10.4M

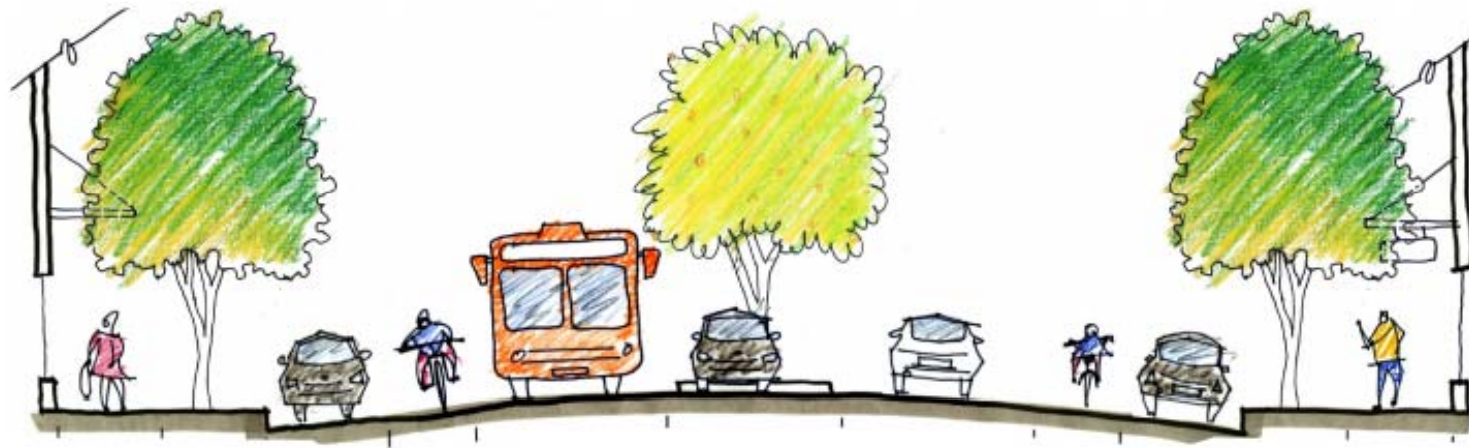


*Source: City of Lancaster
from National Complete Streets Coalition*

Case Study: Lancaster, CA

- Safety benefits
 - Collisions reduced from 3/month to less than 1/month
- Economic benefits
 - Private investment since 2006 estimated at \$125M
 - Sales tax revenue increased by 26%
 - 40 new businesses opened in 2010-2012
 - Estimated 800 new jobs
 - 100 new housing units within 1 block
 - 4% vacancy

Next Steps



Source: Tacoma Mixed-Use Centers Complete Streets Design Guidelines

SCTA Schedule for OBAG

2012

October 8	Call for Projects to SCTA for approval
November 30	Call for Projects
December	Review Applications

2013

January	Advisory Committee Review/Approval
January 31	Complete Streets resolutions approved General Plan Housing elements certified by HCD
March	Board Approval
July 30	SCTA Program Projects

2014

February 1	Request for Authorization Deadline*
March 31	Obligation of Funds Approval Required

* Could change to December 1, 2013 if Resolution 3606 is amended.

Questions?



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